



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE
THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of
Richard M. Miller-Smith

TITLE: AN IMAGE CONTROL
SYSTEM

Serial No. 10/003,056

Filed: November 2, 2001

Group Art Unit: 2677

Examiner: Vincent E. Kovalick

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Serial No. 10/003,056

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Real party in interest

The real party of interest is the Assignee who is U. S. Philips Corporation, a corporation existing under the laws of the State of Delaware (hereinafter Appellant).

Related appeals and interferences

There are no related appeals or interferences to the present application that are known to appellants, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of the Claims

Claims 1-20 are currently pending in the present application for invention and are drawn to an image control system for controlling a menu on a display. Claims 1-20 stand rejected as the claims that are currently being appealed. A copy of appealed claims 1-20 is contained in Appendix I following this brief.

Status of the Amendments After Final

A response was filed subsequent to the final rejection to overcome the Examiner's rejection of claims 1-20 under 35 U.S.C. §103(a). The Examiner in an Advisory Action dated December 15, 2005 indicated that the rejections of claims 1-20 under 35 U.S.C. §103(a) stand.

Summary of the Claimed Subject Matter

Claims 1-20 as filed with the present application for invention are drawn to an image control system for controlling a menu on a display.

Appealed claim 1 defines subject matter as shown in Figure 1 for an image control system for controlling a menu (shown in Figure 1 as carousel 3) on a display (the display is shown in Figure 1 as screen 2).

The menu 3 as shown in Figure 1 is arranged as a plurality of simultaneously displayed menu items in a loop as discussed in the specification on page 4, lines 1-5.

A selector 12 as shown in Figure 1 and discussed in the specification on page 4, lines 5-7 can select an item from the menu, the loop and the selector being moveable with respect to each other. A user input device (shown in Figure 1 as control device 6) for inputting an

instruction from a user for selecting said menu items from the menu, wherein the user input device comprises a control device to generate a control signal to move the loop and the selector relative to each other, the control device having a loop configuration (see page 4, lines 15-23), wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu (see page 4, lines 30-32).

Claim 12 (previously presented): An image control system for controlling a menu (shown in Figure 1 as carousel 3) on a display (the display is shown in Figure 1 as screen 2). The menu for a display, the menu being arranged as a plurality of simultaneously displayed menu items in a loop as discussed in the specification on page 4, lines 1-5. A selector (as shown in Figure 1 and discussed in the specification on page 4, lines 5-7) within the display for selecting one of the items from the menu, the loop and the selector being moveable with respect to each other.

A user input device (shown in Figure 1 as control device 6) for providing user input for selecting said menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other (see page 4, lines 15-23), wherein users can execute a continuous circular movement upon the annular control device causing a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu (see page 4, lines 30-32).

Grounds of Rejection to be Reviewed on Appeal

The Advisory Action dated December 15, 2005 indicated that the rejections to claim 1-20 stand. Claims 1-20 are the appealed claims.

I. Claims 1, 3, 5-6, 12, 14 and 16-17 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable U.S. Patent No. 6,448,987 issued to Easty et al. (hereinafter referred to as *Easty et al.*), taken with U.S. Patent No. 5,940,076 issued to Sommers et al. (hereinafter referred to as *Sommers et al.*), in view of U.S. Patent No. 5,986,638 issued to Cheng (hereinafter referred to as *Cheng*).

II. Claims 2, 7-8, 13 and 18 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng* and

further in view of U.S. Patent No. 5,667,319 issued in the name of Satoff (hereinafter referred to as *Satloff*).

III. Claims 4, 15, and 20 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng* as applied to and further in view of U.S. Patent No. 4,736,191 issued to Matzke et al. (hereinafter referred to as *Matzke et al.*).

IV. Claim 9 is rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, and further in view of U.S. Patent No. 6,501,516 issued to Clapper (hereinafter referred to as *Clapper*).

V. Claim 10 is rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* and *Sommers et al.* in view of *Cheng*, and further in view of U.S. Patent No. 5,736,703 (hereinafter referred to as *Kim*).

VI. Claims 11 and 19 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, and further in view of U.S. Patent No. 6,405,061 issued to Bae (hereinafter referred to as *Bae*).

The MPEP at §2143 states, regarding the basic requirements of a *Prima Facie* Case of Obviousness, that in order “establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).”

The MPEP at §2143.01 states that the “mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).”

The MPEP at §2143.01 further states that a “statement that modifications of the prior art to meet the claimed invention would have been well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.” *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

Argument

I. The rejection of appealed claims 1, 3, 5-6, 12, 14 and 16-17 under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* (U.S. Patent No. 6,448,987), taken with *Sommers et al.* (U.S. Patent No. 5,940,076), in view of *Cheng* (U.S. Patent No. 5,986,638)

A. The rejection under 35 U.S.C. S 103(a)

Appealed claims 1, 3, 5-6, 12, 14 and 16-17 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* (U.S. Patent No. 6,448,987), taken with *Sommers et al.* (U.S. Patent No. 5,940,076), in view of *Cheng* (U.S. Patent No. 5,986,638).

B. The references

Easty et al. (U.S. Patent No. 6,448,987) provide an outer ring and an inner ring, with the categories selected using the outer ring and the sub-categories selected by the inner ring (see Abstract). *Easty et al.* teach to select an icon on the outer ring representing a category. The outer ring is then rotated so that the selected icon is at the top of the ring and the inner ring displays the subcategories to the category that is selected by the outer ring (see col. 5, lines 45-55). Note that there is no control device within *Easty et al.* that has a loop configuration and *Easty et al.* make no disclosure or suggestion that would motivate a person skilled in the art to modify the control device to employ a loop lie movement around the control device. There is no movement around the loop configuration of the control device that causes a corresponding

relative angular movement that is substantially equal between the selector and the loop of the menu that is disclosed, or suggested by *Easty et al.*

Sommers et al. (U.S. Patent No. 5,940,076) teach graphical user interface on a display 68 that presents information as user selectable fields (422-426) located on an arc (see Abstract). A control 302 provides the user with directional control (up, down, left or right) of which field is currently highlighted in the display 68 (see col. 3, lines 51-54). The control 302 moves up or down (see col. 4, lines 36-44) to reach off screen applications that are brought onto the display. The display within *Sommers et al.* spins in a wheel like manner either clockwise or counter-clockwise in response to respectively the control is pressed on the up arrow or down arrow. The control device 302 is activated to spin the wheel in *Sommers et al.*, (see col. 5, lines 61-63). *Sommers et al.* teach that the control 302 can cause the loop to move in response to inputs. It should be noted that there is no loop configuration of the control device 302 disclosed or suggested by *Sommers et al.* The appellant, respectfully, points out that *Sommers et al.* do not teach movement around the loop configuration of the control device. *Sommers et al.* teach that up or down inputs to the control device 302 cause a movement in the wheel of *Sommers et al.* Accordingly, there can be no corresponding relative angular movement between the control device and the loop of the menu that is substantially equal within *Sommers et al.* because there is no angular movement disclosed, or suggested, within the control device 302 of *Sommers et al.*

Cheng (U.S. Patent No. 5,986,638) teaches using a flywheel that controls movement of the cursor along the circular path in which the menu icons are arranged. The cursor moves in accordance with the movement of the flywheel. If the user rotates the flywheel clockwise, the cursor moves in a clockwise manner along the circular path of the menu. If the user rotates the flywheel counter clockwise, the cursor moves in a counter clockwise manner along the circular path of the menu. (see col. 2, lines 48-61). While the menu icons are arranged in a circular path, the menu icons do not move in response to rotation of the flywheel. Simply put, there is no movement in the menu icons arranged in the circular path disclosed or suggested by *Cheng*. Note that there is no disclosure or suggestion within *Cheng* for a corresponding relative angular movement between the control device and the loop of the menu that is substantially equal.

C. The differences between the invention and the reference

The rejection alleges that *Easty et al.* teach a graphic user interface for a digital content delivery system using circular menus wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu. The appellant, respectfully, points out that *Easty et al.* provide an outer ring and an inner ring, with the categories selected using the outer ring and the sub-categories selected by the inner ring. *Easty et al.* teach to select an icon on the outer ring representing a category. The outer ring is then rotated so that the selected icon is at the top of the ring and the inner ring displays the subcategories to the category that is selected by the outer ring (see col. 5, lines 45-55). There is no movement around the loop configuration of the control device disclosed or suggested by *Easty et al.* Moreover, there is no corresponding relative angular movement between the selector and the loop of the menu that is disclosed, or suggested by *Easty et al.* There is no movement around the loop configuration of the control device that causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu that is disclosed, or suggested by *Easty et al.*

The rejection contends that while *Easty et al.* do not teach a control device having a loop configuration to generate a control signal that moves the loop of the control device and the selector relative to each other, that *Sommers et al.* do teach this subject matter. The appellant, respectfully, points out that *Sommers et al.* teach a control 302 that moves up or down (see col. 4, lines 36-44). To spin the wheel in *Sommers et al.*, control device 302 is activated (see col. 5, lines 61-63). Appealed claims 1 and 12 define subject matter for movement around the loop configuration of the control device that causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu. The rejection asserts that *Sommers et al.* teach a relative angular movement between the selector and the loop of the menu. *Sommers et al.* teach that the control 302 can cause the loop to move in response to inputs that do not constitute a loop configuration of the control device. The appellant, respectfully, points out that *Sommers et al.* do not teach movement around the loop configuration of the control device. *Sommers et al.* teach that up or down inputs to the control device 302 cause a movement in the wheel of *Sommers et al.* The appellant, respectfully, submits that there can be no corresponding relative angular movement between the control device and the loop of the menu that is substantially equal because there is no angular movement disclosed, or suggested, within the

control device of *Sommers et al.* Accordingly, all of the elements defined by rejected claims are not found in the combination of *Easty et al.* with *Sommers et al.*, either alone or in combination.

The rejection admits that the combination of *Easty et al.* with *Sommers et al.* do not teach the user input device having a loop configuration. The rejection contends that *Cheng* teaches a menu arranged as a carousel. The appellant, respectfully, points out that *Cheng* teaches using a flywheel that controls movement of the cursor along the circular path in which the menu icons are arranged. The cursor moves in accordance with the movement of the flywheel (see col. 2, lines 48-61). Note that there is no disclosure or suggestion within *Cheng* for a corresponding relative angular movement between the control device and the loop of the menu that is substantially equal because there is no movement in the circular path in which the menu icons are arranged as taught by *Cheng*. The combination made by the rejection does not disclose or suggest a corresponding relative angular movement between the control device and the loop of the menu that is substantially equal. Therefore, because there is no relative angular movement disclosed, or suggested, within the cited references, the rejection does not make a *prima facie* case of obviousness.

Appealed claim 1

Appealed claim 1 defines subject matter for an image control system for controlling a menu on a display including a menu for a display, the menu being arranged as a plurality of simultaneously displayed menu items in a loop and a selector to select an item from the menu, the loop and the selector being moveable with respect to each other. Appealed claim 1 further defines subject matter for a user input device for inputting an instruction from a user for selecting said menu items from the menu, wherein the user input device comprises a control device to generate a control signal to move the loop and the selector relative to each other, the control device having a loop configuration, wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a control device having a loop configuration, wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu. The combination made by the rejection does not disclose or suggest a corresponding relative angular

movement between the control device and the loop of the menu that is substantially equal. Therefore, because there is no relative angular movement disclosed, or suggested, within the cited references, the rejection does not make a *prima facie* case of obviousness.

Appealed claim 3

Appealed claim 3 defines the subject matter according to appealed claim 1, wherein the control device is a rotary control, rotatable through 360° to generate the control signal in dependence on the angular position of the control device about the loop configuration to control the position or the movement of the menu and the selector relative to each other. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a control device having a loop configuration, wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu, wherein the control device is a rotary control, rotatable through 360° to generate the control signal in dependence on the angular position of the control device about the loop configuration to control the position or the movement of the menu and the selector relative to each other.

Appealed claim 5

Appealed claim 5 defines the subject matter according to appealed claim 1, wherein the menu is arranged in a substantially circular form and wherein change in the control signal causes rotation of the circle with respect to a predetermined point of rotation. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a control device having a loop configuration, wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu, wherein the menu is arranged in a substantially circular form and wherein change in the control signal causes rotation of the circle with respect to a predetermined point of rotation.

Appealed claim 6

Appealed claim 6 defines the subject matter according to appealed claim 1, wherein the menu is arranged in a carousel arrangement and is displayed in three dimensions on

the display. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a control device having a loop configuration, wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu and wherein the menu is arranged in a carousel arrangement and is displayed in three dimensions on the display.

Appealed claim 12

Appealed claim 12 defines subject matter for an image control system for controlling a menu on a display including a menu for a display, the menu being arranged as a plurality of simultaneously displayed menu items in a loop and a selector to select an item from the menu, the loop and the selector being moveable with respect to each other. Appealed claim 12 further defines subject matter for a user input device for providing user input for selecting said menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein users can execute a continuous circular movement upon the annular control device causing a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein users can execute a continuous circular movement upon the annular control device causing a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu.

Appealed claim 14

Appealed claim 14 defines the subject matter according to appealed claim 13, wherein the annular control device is a rotary control, to generate the control signal in dependence on the angular position of the control device about the loop configuration to control the position or the movement of the menu and the selector relative to each other. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to

each other, wherein the annular control device comprises at least one force-sensing resistor to receive a force from a user and generate the control signal and the annular control device is a rotary control, to generate the control signal in dependence on the angular position of the control device about the loop configuration to control the position or the movement of the menu and the selector relative to each other.

Appealed claim 16

Appealed claim 16 defines the subject matter according to appealed claim 12, wherein the menu is arranged in a substantially circular form and wherein changes in the control signal cause rotation of the circle with respect to a predetermined point of rotation. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein changes in the control signal cause rotation of the circle with respect to a predetermined point of rotation. The combination made by the rejection does not disclose or suggest a corresponding relative angular movement between the control device and the loop of the menu that is substantially equal. Therefore, because there is no relative angular movement disclosed, or suggested, within the cited references, the rejection does not make a *prima facie* case of obviousness.

Appealed claim 17

Appealed claim 16 defines the subject matter according to appealed claim 12, wherein the menu is arranged in a carousel arrangement and is displayed in three dimensions on the display. *Easty et al.* taken with *Sommers et al.* in view of *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein the menu is arranged in a carousel arrangement and is displayed in three dimensions on the display.

H. The rejection of appealed claims 2, 7-8, 13 and 18 under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng* and further in view of U.S. Patent No. 5,667,319 issued in the name of Satoff (hereinafter referred to as *Satloff*).

A. The rejection under 35 U.S.C. S 103(a)

Appealed claims 2, 7-8, 13 and 18 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, further in view of U.S. Patent No. 5,667,319 issued in the name of Satoff (hereinafter referred to as *Satloff*).

B. The references

Easty et al. (U.S. Patent No. 6,448,987), *Sommers et al.* (U.S. Patent No. 5,940,076), and *Cheng* (U.S. Patent No. 5,986,638) have been discussed in detail in the appeal of claims 1, 3, 5-6, 12, 14 and 16-17 under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* (U.S. Patent No. 6,448,987), taken with *Sommers et al.* (U.S. Patent No. 5,940,076), in view of *Cheng* (U.S. Patent No. 5,986,638), *supra*.

Satloff (U.S. Patent No. 5,667,319). *Satloff* relates to simplified keyboard arrangements for use by a child (see Abstract). The appellant, respectfully, points out that the paragraph on col. 7, lines 29-36, of *Satloff* contains a statement that the simplified keyboard arrangement can contain a joystick trackball, force sensing device or other known directional device. It should be noted that there is no disclosure, or suggestion, *Satloff* for movement around the loop configuration of the control device that causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu.

C. The differences between the invention and the reference

The rejection admits that *Easty et al.* taken with *Sommers et al.* in view of *Cheng* does not teach said image control system wherein the user input devices comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this; or wherein the user input device is a joystick. The rejection asserts that *Satloff* teaches an image control system wherein the input device comprises at least one force

sensing resistor or a joystick at col. 7, lines 29-36. The appellant, respectfully, asserts that appealed claims 2, 7-8, 13 and 18 include all the limitations within the claims from which they depend, wherein the movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu. *Satloff* relates to keyboards, and does not disclose, or suggest, movement around the loop configuration of the control device that causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu. Moreover, there is no motivation provided by any of *Easty et al.*, *Cheng*, *Sommers et al.* or *Satloff* to modify the teachings contained therein to create a movement around a loop configuration of the control device that causes a corresponding relative movement between a selector and a loop of a menu.

Appealed claim 2

Appealed claim 2 defines the subject matter according to appealed claim 1, wherein the user input device comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on the force from the user. The combination of *Satloff*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein the user input device comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on the force from the user.

Appealed claim 7

Appealed claim 7 defines the subject matter according to appealed claim 1, wherein the user input device is a joystick. The combination of *Satloff*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein the user input device comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on the force from the user.

Appealed claim 8

Appealed claim 8 defines the subject matter according to appealed claim 1, wherein the user input device is a joystick and the user input device further comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this. The combination of *Satloff*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein the user input device is a joystick and the user input device further comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on the force from the user.

Appealed claim 13

Appealed claim 13 defines the subject matter according to appealed claim 12, wherein the annular control device comprises at least one force-sensing resistor to receive a force from the user and generate the control signal in dependence on the force from the user. The combination of *Satloff*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein the annular control device comprises at least one force-sensing resistor to receive a force from the user and generate the control signal in dependence on the force from the user.

Appealed claim 18

Appealed claim 18 defines the subject matter according to appealed claim 12, wherein the user input device is a joystick and the user input device further comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this. The combination of *Satloff*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal

to move the loop and the selector relative to each other, wherein the user input device is a joystick and the user input device further comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this.

III. The rejection of appealed claims 4, 15, and 20 under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng* and further in view of U.S. Patent No. 4,736,191 issued to Matzke et al. (hereinafter referred to as *Matzke et al.*).

A. The rejection under 35 U.S.C. S 103(a)

Appealed claims 4, 15, and 20 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, further in view of U.S. Patent No. 4,736,191 issued to Matzke et al. (hereinafter referred to as *Matzke et al.*).

B. The references

Easty et al. (U.S. Patent No. 6,448,987), *Sommers et al.* (U.S. Patent No. 5,940,076), and *Cheng* (U.S. Patent No. 5,986,638) have been discussed in detail in the appeal of claims 1, 3, 5-6, 12, 14 and 16-17 under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* (U.S. Patent No. 6,448,987), taken with *Sommers et al.* (U.S. Patent No. 5,940,076), in view of *Cheng* (U.S. Patent No. 5,986,638), *supra*.

The rejection asserts that *Matzke et al.* teach a control pad that is an annular pressure pad to receive pressure from the user and generate a control signal corresponding to the annular position on the pressure pad (col. 2, lines 40-47; col. 4, lines 13-24; and col. 11, lines 49-52). The appellant, respectfully, point out that *Matzke et al.* do not disclose, or suggest, an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied wherein the loop **and** the selector being moveable with respect to each other. Moreover, *Matzke et al.* do not disclose, or suggest, wherein the movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the

selector and the loop of the menu. There is no disclosure or suggestion within *Matzke et al.*, to control the loop display position by applying pressure on the pressure pad to create a corresponding movement in the loop and the selector relative to each other. There is no disclosure or suggestion within *Matzke et al.*, for a continuous circular movement upon an annular control device causing a corresponding relative movement between the selector and the loop of the menu in a series of discrete steps. *Matzke et al.* do not disclose or suggest the display the movement of the loop and the selector appears continuous to the user of the display.

C. The differences between the invention and the reference

The appellant would like to, respectfully, point out that *Matzke et al.* do not disclose, or suggest, an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied wherein the loop **and** the selector being moveable with respect to each other. Moreover, *Matzke et al.* do not disclose, or suggest, wherein the movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu.

There is no suggestion within the cited reference *Matzke et al.*, to control the loop display position by applying pressure on the pressure pad to create a corresponding movement in the loop and the selector relative to each other.

There is no suggestion within the cited reference *Matzke et al.*, for a continuous circular movement upon an annular control device causing a corresponding relative movement between the selector and the loop of the menu in a series of discrete steps. The appellant respectfully submits that moving the loop and selector in discrete steps is not disclosed or suggested by a continuous movement of the loop and the selector. In a digital world, everything is computed in discrete steps. The display can take the form wherein the movement of the loop and the selector appears continuous to the user. Alternatively, the display can take form where the movement of the loop and the selector appears to occur in discrete steps. The appellant that neither the display, wherein the movement of the loop and the selector appears continuous to the user of the display, or the movement of the loop relative to the selector appears to occur in discrete steps is disclosed, or suggested, by the combination made by the rejection. The appellant, respectfully, asserts that the rejection is using the elements to the rejected claims of the

present invention as a template from which to pick and choose the recited elements of the rejected claims from among various prior art references. There is no suggestion or motivation within the cited reference to combine the set of references combined by this rejection.

Appealed claim 4

Regarding appealed claim 4, the appellant would like to, respectfully, point out that *Matzke et al.* do not disclose, or suggest, an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied wherein the loop **and** the selector being moveable with respect to each other. Moreover, *Matzke et al.* do not disclose, or suggest, wherein the movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu.

Appealed claim 15

Regarding appealed claim 15, there is no suggestion within the cited reference *Matzke et al.*, to control the loop display position by applying pressure on the pressure pad to create a corresponding movement in the loop and the selector relative to each other as recited by appealed claim 15.

Appealed claim 20

Regarding appealed claim 20, there is no suggestion within the cited reference *Matzke et al.*, for a continuous circular movement upon an annular control device causing a corresponding relative movement between the selector and the loop of the menu in a series of discrete steps. The appellant respectfully submits that moving the loop and selector in discrete steps is not disclosed or suggested by a continuous movement of the loop and the selector. In a digital world, everything is computed in discrete steps. The display can take the form wherein the movement of the loop and the selector appears continuous to the user. Alternatively, the display can take the form wherein the movement of the loop and the selector appears to occur in discrete steps. The appellant asserts that neither the display, wherein the movement of the loop and the selector appears continuous to the user of the display, or the movement of the loop relative to the selector appears to occur in discrete steps is disclosed, or suggested, by the

combination made by the rejection. The appellant, respectfully, asserts that the rejection is using the elements to the rejected claims of the present invention as a template from which to pick and choose the recited elements of the rejected claims from among various prior art references. There is no suggestion or motivation within the cited reference to combine the set of references combined by this rejection.

IV. Claim 9 is rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, and further in view of U.S. Patent No. 6,501,516 issued to Clapper (hereinafter referred to as *Clapper*).

A. The rejection under 35 U.S.C. S 103(a)

Appealed claim 9 is rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, further in view of U.S. Patent No. 6,501,516 issued to Clapper (hereinafter referred to as *Clapper*).

B. The references

Easty et al. (U.S. Patent No. 6,448,987), *Sommers et al.* (U.S. Patent No. 5,940,076), and *Cheng* (U.S. Patent No. 5,986,638) have been discussed in detail in the appeal of claims 1, 3, 5-6, 12, 14 and 16-17, *supra*.

Clapper pertains to a remote control but makes no mention of a corresponding relative angular movement between the control device and the loop of a menu. There is mention of movement in the circular path for either the selector, control device or the menu icons within *Clapper*. Furthermore, there is no motivation for modifying the teachings of *Clapper* to create a circular path for either the selector, control device or the menu icons remote control taught therein.

C. The differences between the invention and the reference

Cheng relates to an on screen display (OSD) for computer monitors. *Sommers et al.* relates to Graphical User Interfaces. The appellant, respectfully, submits that *Clapper* pertains to a remote control and makes no mention of a corresponding relative angular movement between the control device and the loop of a menu. In fact, there is mention of movement in the

circular path for either the selector, control device or the menu icons within *Clapper*. The rejection does not provide any motivation for modifying the teachings of *Clapper* to create a circular path for either the selector, control device or the menu icons remote control such that the subject matter that has been so created actually reads on the rejected claims. The appellant, respectfully, asserts that the rejection is using the elements to the rejected claims of the present invention as a template from which to pick and choose the recited elements of the rejected claims from among various prior art references. There is no disclosure, suggestion or motivation within the cited reference to combine the set of references combined by this rejection.

Appealed claim 9

Appealed claim 9 relates to a television including a control system according to appealed claim 1, in which the display is a television screen and the user input device is a television remote control. The combination of *Clapper*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, in which the display is a television screen and the user input device is a television remote control.

V. Claim 10 is rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* and *Sommers et al.* in view of *Cheng*, and further in view of U.S. Patent No. 5,736,703 (hereinafter referred to as *Kim*).

A. The rejection under 35 U.S.C. S 103(a)

Appealed claims 4, 15, and 20 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, further in view of U.S. Patent No. 5,736,703 (hereinafter referred to as *Kim*).

B. The references

Easty et al. (U.S. Patent No. 6,448,987), *Sommers et al.* (U.S. Patent No. 5,940,076), and *Cheng* (U.S. Patent No. 5,986,638) have been discussed in detail in the appeal of claims 1, 3, 5-6, 12, 14 and 16-17, *supra*.

Kim (U.S. Patent No. 5,736,703) employs a rotary device to scroll through a function list. There is no disclosure, or suggestion, within *Kim* for using the rotary device for controlling the simultaneous movement of both a loop and a selector wherein movement around the rotary device causes a corresponding relative movement between the selector and the loop of the menu.

C. The differences between the invention and the reference

Appealed claim 10

The rejection of appealed claim 10 admits that the combination of *Easty et al.* with *Sommers et al.* further in view of *Cheng* does **not** teach a mobile telephone handset having a control system in which the display is the mobile telephone handset display screen and the input device is a rotary control positioned on the front face of the mobile telephone handset. The rejection asserts that *Kim* teaches a variable speed select key for a mobile communication device enabling step or speed scrolling of device functions to facilitate function selection and further teaches a mobile telephone handset having a control system in which the display is the mobile telephone handset display screen and the input device is a rotary control positioned on the front face of the mobile telephone handset. The appellant would like to, respectfully, point out that *Kim* employs a rotary device to scroll through a function list. There is no disclosure, or suggestion, within *Kim* for using the rotary device for controlling the simultaneous movement of both a loop and a selector wherein movement around the rotary device causes a corresponding relative movement between the selector and the loop of the menu. The rejection picks and chooses among prior art references using the elements to the appealed claim 10 as a blueprint without any suggestion or motivation to combine the various elements from the cited references.

The combination of *Kim*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, in which the display is the mobile telephone handset display screen and the input device is a rotary control positioned on the front face of the mobile telephone handset.

VI. Claims 11 and 19 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng* , and further in view of U.S. Patent No. 6,405,061 issued to Bae (hereinafter referred to as *Bae*).

A. The rejection under 35 U.S.C. S 103(a)

Appealed claims 4, 15, and 20 are rejected under the provisions of 35 U.S.C. §103(a) as being unpatentable over *Easty et al.* taken with *Sommers et al.* in view of *Cheng*, further in view of U.S. Patent No. 6,405,061 issued to Bae (hereinafter referred to as *Bae*).

B. The references

Easty et al. (U.S. Patent No. 6,448,987), *Sommers et al.* (U.S. Patent No. 5,940,076), and *Cheng* (U.S. Patent No. 5,986,638) have been discussed in detail in the appeal of claims 1, 3, 5-6, 12, 14 and 16-17, *supra*.

Bae (U.S. Patent No. 6,405,061) pertains to data entry functions used on cellular telephones. One function for hand written alpha-numeric entry using the fingertip as the entry device and another data entry function is to use the fingertip for a point and click mechanism (see Abstract). *Bae* teaches to employ a button to switch from one data entry function to the other. The appellant, respectfully, points out that *Bae* does not disclose, or suggest, any controlling of simultaneous movement for both a loop and a selector wherein movement around a rotary device causes a corresponding relative movement between the selector and the loop of the menu. Furthermore, *Bae* does not disclose, or suggest, an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied.

C. The differences between the invention and the reference

The rejection admits that *Easty et al.* taken with *Sommers et al.* in view of *Cheng* **does not** teach a mobile telephone handset display screen and the control device is an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the

angular position on the pressure pad at which pressure is applied. The appellant would like to point out that *Bae* does not disclose, or suggest, any controlling of simultaneous movement for both a loop and a selector wherein movement around a rotary device causes a corresponding relative movement between the selector and the loop of the menu. Furthermore, *Bae* does not disclose, or suggest, an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied.

Appealed claims 11 and 19

Appealed claims 11 and 19 define subject matter for a mobile telephone handset having a control system in which the control device is an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied. The appellants, respectfully, assert that the subject matter defined by appealed Claims 11 and 19 for the control device is an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied are not disclosed or suggested by *Bae*.

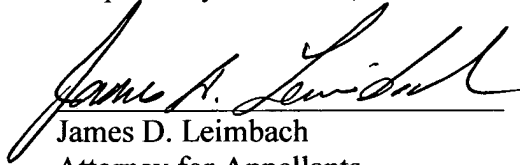
The combination of *Bae*, *Easty et al.*, *Sommers et al.* and *Cheng* do not disclose or suggest a user input device for providing user input for selecting the menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, in which the display is the mobile telephone handset display screen and the input device is a rotary control positioned on the front face of the mobile telephone handset.

Furthermore, there is no suggestion or motivation provide by the rejection to combine *Bae* with *Easty et al.*, *Sommers et al.* and *Cheng* as done by this rejection.

Conclusion

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-20 should be reversed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James D. Leimbach", is written over a horizontal line.

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**APPENDIX I. Claims on Appendix I**

1. An image control system for controlling a menu on a display, comprising:
 - a menu for a display, the menu being arranged as a plurality of simultaneously displayed menu items in a loop;
 - a selector to select an item from the menu, the loop and the selector being moveable with respect to each other; and
 - a user input device for inputting an instruction from a user for selecting said menu items from the menu, wherein the user input device comprises a control device to generate a control signal to move the loop and the selector relative to each other, the control device having a loop configuration, wherein movement around the loop configuration of the control device causes a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu.
2. A system according to Claim 1, wherein the user input device comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this.
3. A system according to Claim 1, wherein the control device is a rotary control, rotatable through 360° to generate the control signal in dependence on the angular position of the control device about the loop configuration to control the position or the movement of the menu and the selector relative to each other.
4. A system according to Claim 1, wherein the control device is an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied.
5. A system according to Claim 1, wherein the menu is arranged in a substantially circular form and wherein change in the control signal causes rotation of the circle with respect to a predetermined point of rotation.

6. A system according to Claim 1, wherein the menu is arranged in a carousel arrangement and is displayed in three dimensions on the display.
7. A system according to Claim 1, wherein the user input device is a joystick.
8. A system according to Claim 1, wherein the user input device is a joystick and the user input device further comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this.
9. A television comprising a control system according to Claim 1, in which the display is a television screen and the user input device is a television remote control.
10. A mobile telephone handset having a control system according to Claim 1, in which the display is the mobile telephone handset display screen and the input device is a rotary control positioned on the front face of the mobile telephone handset.
11. A mobile telephone handset having a control system according to Claim 1, in which the display is the mobile telephone handset display screen and the control device is an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied
12. An image control system for controlling a menu on a display, comprising:
 - a menu for a display, the menu being arranged as a plurality of simultaneously displayed menu items in a loop;
 - a selector within the display for selecting one of the items from the menu, the loop and the selector being moveable with respect to each other; and
 - a user input device for providing user input for selecting said menu items from the menu, the user input device having an annular control device that generates a control signal to move the loop and the selector relative to each other, wherein users can execute a continuous circular movement upon the annular control device causing a corresponding relative angular movement that is substantially equal between the selector and the loop of the menu.

13. A system according to Claim 12, wherein the annular control device comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this.
14. A system according to Claim 13, wherein the annular control device is a rotary control, to generate the control signal in dependence on the angular position of the control device about the loop configuration to control the position or the movement of the menu and the selector relative to each other.
15. A system according to Claim 12, wherein the annular control device further comprises a pressure pad to generate the control signal in response to an angular position on the pressure pad at which pressure is applied to create a corresponding movement in the loop and the selector relative to each other.
16. A system according to Claim 12, wherein the menu is arranged in a substantially circular form and wherein changes in the control signal cause rotation of the circle with respect to a predetermined point of rotation.
17. A system according to Claim 12, wherein the menu is arranged in a carousel arrangement and is displayed in three dimensions on the display.
18. A system according to Claim 12, wherein the user input device is a joystick and the user input device further comprises at least one force-sensing resistor to receive a force from a user and generate the control signal in dependence on this.
19. A mobile telephone handset having a control system according to Claim 12, in which the display is the mobile telephone handset display screen and the control device is an annular pressure pad to receive pressure from a user and generate the control signal corresponding to the angular position on the pressure pad at which pressure is applied.

20. A system according to Claim 12, wherein the continuous circular movement upon the annular control device causes the corresponding relative movement between the selector and the loop of the menu in a series of discrete steps.